U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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## UTILITY **PATENT APPLICATION TRANSMITTAL**

Attorney Docket No. | MP0308

| morney Docker Ivo. |  |                 |  |  |  |  |  |  |
|--------------------|--|-----------------|--|--|--|--|--|--|
| irst Inventor      |  | Pantas SUTARDJA |  |  |  |  |  |  |
| itle               | SYSTEM AND METHOD FOR CONTROLLING GAIN AND TIMING PHASE IN A PRESENCE OF A FIRST LEAST MEAN SQUARE FILTER USING A SECOND ADAPTIVE FILTER |                 |  |  |  |  |  |  |
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| (Uniy for new nonprovision  | nai appiications und   | er 37 CFR 1.53     | (D)) <u> </u> | xpress  | Maii Labei No.  |            |      |        |  |  |
|---|--|--------------------|---------------|---|---|------------|------|--------|--|--|
| APPLICATION ELEMENTS  |  |                    |               |   | ADDRESS TO: Assistant Commissioner for Patents Box Patent Application |            |      |        |  |  |
| See MPEP chapter 600 concerning utility patent application contents.  |  |                    |               |   |   |            |      |        |  |  |
| See MPEP chapter 600 concerning utility patent application contents.  1.  Fee Transmittal Form (e.g., PTO/SB/17) (Submit an original and a duplicate for fee processing)  2.  Applicant claims small entity status. See 37 CFR 1.27.  3.  Specification [Total Pages 100] (preferred arrangement set forth below)  - Descriptive title of the invention - Cross Reference to Related Applications - Statement Regarding Fed sponsored R & D - Reference to sequence listing, a table, or a computer program listing appendix - Background of the Invention - Brief Summary of the Invention - Brief Description of the Drawings (if filed) - Detailed Description - Claim(s) - Abstract of the Disclosure  4.  Prawing(s) (35 U.S.C. 113) [Total Sheets 8]  5. Oath or Declaration [Total Pages 2]  a.  Newly executed (original or copy) Copy from a prior application (37 CFR 1.63 (d)) (for continuation/divisional with Box 18 completed)  i.  DELETION OF INVENTOR(S) Signed statement attached deleting inventor(s) named in the prior application, see 37 CFR 1.63(d)(2) and 1.33(b).  6.  Application Data Sheet. See 37 CFR 1.76 |  |                    |               | Washington, DC 20231  7. CD-ROM or CD-R in duplicate, large table or Computer Program (Appendix)  8. Nucleotide and/or Amino Acid Sequence Submission (if applicable, all necessary)  a. Computer Readable Form (CRF)  b. Specification Sequence Listing on:  i. CD-ROM or CD-R (2 copies); or  ii. paper  c. Statements verifying identity of above copies  ACCOMPANYING APPLICATION PARTS  9. V Two Assignment Papers (cover sheet & document(s))  10. 37 CFR 3.73(b) Statement Power of (when there is an assignee)  11. English Translation Document (if applicable)  12. Information Disclosure Statement (IDS)/PTO-1449  13. Preliminary Amendment  14. V Return Receipt Postcard (MPEP 503) (Should be specifically itemized)  15. Certified Copy of Priority Document(s) (if foreign priority is claimed)  16. Nonpublication Request under 35 U.S.C. 122 (b)(2)(B)(i). Applicant must attach form PTO/SB/35 or its equivalent.  17. Other: |   |            |      |        |  |  |
| or in an Application Data She   |  |                    | . (015)       |   |   |            |      |        |  |  |
| Continuation  | Divisional   | Continuation-in-pa | rt (CIP)      | c   | of prior application No.:   |            | -    |        |  |  |
|   | Prior application information: Examiner: Group Art Unit:   |                    |               |   |   |            |      |        |  |  |
| Box 5b, is considered a part o  | For CONTINUATION OR DIVISIONAL APPS only: The entire disciosure of the prior application, from which an oath or deciaration is supplied under Box 5b, is considered a part of the disciosure of the accompanying continuation or divisional application and is hereby incorporated by reference. The incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts. |                    |               |   |   |            |      |        |  |  |
| ·   |  | 19. CORRESI        | PONDENC       | E ADD   | RESS  |            |      |        |  |  |
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| Country   |  |                    | Teleph        | one   |   | F          | ax   |        |  |  |
| Name (Print/Type)   | Andrew J. Bat  | eman               |               | Regi  | stration No. (Attori  | ney/Agent) |      | 45,573 |  |  |
| Signature   | À  | Ludhen !           | . Ba          |   |   | Date       | _    | 7/2004 |  |  |

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Box Patent Application, Washington, DC 20231.

| FEE TRANSMITTAL   |                             |                            | Complete if Known |             |                          |  |          |  |  |
|---|-----------------------------|----------------------------|-------------------|-------------|--------------------------|--|----------|--|--|
|   | -                           | Application Number         |                   |             | er                       | Unknown  |          |  |  |
| <sup>1</sup> 213200.00096 for FY 2004   |                             | Filing Date                |                   |             |                          | 02/27/2004   |          |  |  |
| Effective 10/01/2003. Patent fees are subject to annual revision.   |                             | First Named Inventor       |                   |             | ntor                     | Pantas SUTARDJA  |          |  |  |
|   |                             | Examiner Name Unassig      |                   |             |                          | Unassigned   |          |  |  |
| Applicant claims small entity status. See 37 CFR 1.27   |                             | Art Unit Unassigned        |                   |             |                          |  |          |  |  |
| TOTAL AMOUNT OF PAYMENT (\$) 3,612.00   |                             | Attorney Docket No. MP0308 |                   |             |                          |  |          |  |  |
| METHOD OF PAYMENT (check all that apply)  | FEE CALCULATION (continued) |                            |                   |             |                          |  |          |  |  |
| Check Credit card Money Other None  | 3. ADDITIONAL FEES          |                            |                   |             |                          |  |          |  |  |
| Deposit Account:  | Large Entity   Small Entity |                            |                   |             |                          |  |          |  |  |
| Deposit<br>Account 50-1710  | Fee<br>Code                 | Fee<br>(\$)                | Fee<br>Code       | Fee<br>(\$) |                          | Fee Description  | Eee Paid |  |  |
| ······  | 1051                        | 130                        | 2051              | 65          | Surch                    | arge - late filing fee or oath                                       |          |  |  |
| Account<br>Name KATTEN MUCHIN ZAVIS ROSENMAN  | 1052                        | 50                         | 2052              | 25          |                          | arge - late provisional filing fee or sheet                          |          |  |  |
| The Director is authorized to: (check all that apply)   | 1053                        | 130                        | 1053              | 130         | Non-E                    | nglish specification   |          |  |  |
| Charge fee(s) indicated below Credit any overpayments   | 1812                        | 2,520                      | 1812 2            | •           |                          | ng a request for ex parte reexamination                              |          |  |  |
| Charge above Deposit Account with any additional fees   | 1804                        | 920*                       | 1804              | 920*        |                          | esting publication of SIR prior to<br>iner action                    |          |  |  |
| necessary UNDER 37 CFR 1.16 AND/0R 1.17 to maintain pendency of this application.                         | 1805                        | 1,840*                     | 1805              | 1,840*      |                          | esting publication of SIR after<br>iner action                       |          |  |  |
| FEE CALCULATION   | 1251                        | 110                        | 2251              | 55          | Exten                    | sion for reply within first month                                    |          |  |  |
| 1. BASIC FILING FEE   | 1252                        | 420                        | 2252              | 210         | Exter                    | sion for reply within second month                                   |          |  |  |
| Large Entity Small Entity   | 1253                        | 950                        | 2253              | 475         | Exter                    | nsion for reply within third month                                   |          |  |  |
| Fee Fee Fee Fee Description Fee Paid Code (\$)  | 1254                        | 1,480                      | 2254              | 740         | Exter                    | sion for reply within fourth month                                   |          |  |  |
| 1001 770 2001 385 Utility filing fee 770.00   | 1255                        | 2,010                      | 2255              | 1,005       | Exter                    | nsion for reply within fifth month                                   |          |  |  |
| 1002 340 2002 170 Design filing fee   | 1401                        | 330                        | 2401              | 165         | Notic                    | e of Appeal  |          |  |  |
| 1003 530 2003 265 Plant filing fee  | 1402                        |                            | 2402              |             |                          | a brief in support of an appeal                                      |          |  |  |
| 1004 770 2004 385 Reissue filing fee  | 1403                        |                            | 2403              | 145         | Requ                     | est for oral hearing   |          |  |  |
| 1005 160 2005 80 Provisional filing fee   |                             | 1,510                      | 1451              |             |                          | on to institute a public use proceeding                              |          |  |  |
| SUBTOTAL (1) (\$) 770.00  | 1452                        |                            | 2452              |             |                          | on to revive - unavoidable   |          |  |  |
| 2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE   |                             | 1,330                      | 2453              |             |                          | on to revive - unintentional   |          |  |  |
| Fee from Ext <u>ra Claims below</u> Fee Paid  | 1501                        | 1,330<br>480               | 2501<br>2502      |             | -                        | r issue fee (or reissue)<br>gn issue fee                             |          |  |  |
| Total Claims $140 - 20^{-1} = 120 \times 18.00 = 2,160.00$  | 1503                        |                            | 2503              |             | -                        | issue fee  | -        |  |  |
| Independent Claims 10 - 3** = 7 x 86.00 = 602.00  | 1460                        |                            | 1460              | 130         |                          | ons to the Commissioner  |          |  |  |
| Multiple Dependent 290.00 = 0.00  | 1807                        | 50                         | 1807              | 50          |                          | essing fee under 37 CFR 1.17(q)                                      |          |  |  |
| Large Entity   Small Entity   | 1806                        | 180                        | 1806              | 180         |                          | nission of Information Disclosure Stmt                               |          |  |  |
| Fee Fee Fee <u>Fee Description</u> Code (\$) Code (\$)  | 8021                        | 40                         | 8021              | 40          |                          | rding each patent assignment per                                     | 80.00    |  |  |
| 1202 18 2202 9 Claims in excess of 20   | 1809                        | 770                        | 2809              |             |                          | erty (times number of properties) a submission after final rejection |          |  |  |
| 1201 86 2201 43 Independent claims in excess of 3 1203 290 2203 145 Multiple dependent claim, if not paid | 4040                        | 770                        | 0040              | 205         |                          | FR 1.129(a))   |          |  |  |
| 1204 86 2204 43 ** Reissue independent claims   | 1810                        |                            | 2810              |             | exam                     | ach additional invention to be<br>ined (37 CFR 1.129(b))             |          |  |  |
| over original patent  | 180                         |                            | 2801              |             | •                        | est for Continued Examination (RCE)                                  |          |  |  |
| 1205 18 2205 9 ** Reissue claims in excess of 20 and over original patent                                 | 1802                        | 900                        | 1802              | 900         |                          | est for expedited examination<br>design application                  |          |  |  |
| SUBTOTAL (2) (\$)2,762.00   |                             | r fee (sp                  |                   |             |                          |  |          |  |  |
| **or number previously paid, if greater; For Reissues, see above  | uced by                     | Basic F                    | iling Fe          | ee Pai      | d SUBTOTAL (3) (\$) 80.0 | 00   |          |  |  |
| SUBMITTED BY  |                             |                            |                   |             |                          |  |          |  |  |
| Name: ANDREW J. BATEMAN Registration No.: 45,573 Telephone: (202) 625-3547                                |                             |                            |                   |             |                          |  |          |  |  |
| · · · · · · · · · · · · · · · · · · ·   |                             |                            |                   |             |                          |  |          |  |  |
| Signature: Date: 02/27/2004   |                             |                            |                   |             |                          |  |          |  |  |

MP0039.C1 PATENT

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

| In re Application of:       | )                   |            |
|-----------------------------|---------------------|------------|
| Pantas SUTARDJA             | ) Examiner: Unassi  | gned       |
| Application No.: Unassigned | ) Group Art Unit: U | Inassigned |
| Filed: February 27, 2004    | ;<br>)<br>:         |            |

For: SYSTEM AND METHOD FOR CONTROLLING GAIN AND TIMING PHASE

IN A PRESENCE OF A FIRST LEAST MEAN SQUARE FILTER USING A

SECOND ADAPTIVE FILTER

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

## REQUEST AND CERTIFICATION UNDER 35 U.S.C. § 122 (b)(2)(B)(i)

Sir:

Applicant hereby certifies that the invention disclosed in the attached application has not been and is not intended, at this time, to be the subject of an application filed in another country, or under a multilateral agreement, that requires publication at eighteen months after filing.

## Applicant hereby requests that the attached application <u>not</u> be published under 35 U.S.C. § 122(b).

Applicant reserves the right to subsequently file an application directed to the invention disclosed in the attached application in another country, or under a multilateral international agreement, that requires publication of applications eighteen months after filing. If such an application is filed, Applicant will notify the United States Patent and Trademark Office of the filing within forty-five (45) days after the date of the filing of such foreign or international application.

REQUEST & CERTIFICATION Customer No. 23624

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23624
PATENT AND TRADEMARK OFFICE

MP0039.C1 PATENT

Applicant's undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 625-3547. All correspondence should continue to be directed to our address given below.

Respectfully submitted,

KATTEN MUCHIN ZAVIS ROSENMAN

Attorney for Applicant Andrew J. Bateman Registration No.: 45,573

Intellectual Property Department Marvell Semiconductor, Inc. 700 First Avenue, Mail Stop 509 Sunnyvale, CA 94089 Facsimile No.: (408) 752-9034

Date: February 27, 2004

REQUEST & CERTIFICATION
Customer No. 23624

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